

worm, like the *Tænia serrata*." M. Valenciennes' observations agree closely with those of Von Siebold already given in this Journal (*l. c. supra*); but he states that the Tænioid worms produced from the *Cysticercus pisiformis* in his experiments never possessed generative organs, and the articulations never exhibited the genital pores situated on tubercles of the true *Tænia serrata*\*. In the case of the second dog referred to by M. Milne-Edwards, in which adult Tænias furnished with generative organs were found, M. Valenciennes states, that out of the twenty-five specimens of the supposed *Tænia serrata* there were only two in which the generative organs were developed; these he admits to have belonged to that species, but adds, that as the dog was greatly infested with worms of other species, he is by no means convinced that the two specimens of *Tænia serrata* furnished with generative organs were produced from the *Cysticerci* administered. He also remarks, in opposition to the opinion of Van Beneden and others, that the *Cysticerci* are the larval forms of Tænioid worms; that notwithstanding the abundance of the *Tænia serrata* in the intestines of dogs, even in towns, their opportunities of devouring the entrails of rabbits, the only situation in which the *Cysticercus pisiformis* has been found, are exceedingly rare; whilst, with regard to the *Cysticercus fasciolaris* of the rat, which is stated by Küchenmeister and Siebold to give rise to the *Tænia crassicollis* of the cat, he observes that the cystic worm in question is of very rare occurrence, although the *Tænia* said to be produced from it is to be found in almost every cat.—*Comptes Rendus*, 30th April 1855, p. 997.

*Note on the Trichomonas vaginalis of Donné.*

By MM. SCANZONI and KÖLLIKER.

Notwithstanding the numerous published observations on the *Trichomonas vaginalis* described by Donné, the true nature of this creature does not yet appear to be ascertained. Some regard it as an animal and place it amongst the Infusoria (Donné, Dujardin and Raspail), or amongst the Acarina (R. Froriep, Ehrenberg). The most recent observers consider the Trichomonads as epithelial cells detached from the uterus, and deny that they are animal organisms (Lebert, Valentin, J. Vogel, Von Siebold and R. Wagner). For ourselves, we must confess that we were amongst those who doubted the animal nature of *Trichomonas*.

But after having more attentively studied these formations, and the mucus of the generative organs in many individuals, we have ascertained that the mucus of the neck of the uterus never contains Trichomonads, which would not be the case if they were only vibratile cells. We have also seen that the Trichomonads resemble true Infusoria in every respect.

Before proving this last assertion we may say, that Donné's

\* It is to be observed, however, that M. Valenciennes does not inform us of the length of time over which his experiments extended.

description is very exact. Nevertheless we would particularly insist upon the fact, that the form of the Trichomonads is generally elongated, either ovoid or pyriform, and that their size is very variable (from 0.008 to 0.016 or 0.018 millim.). One of the extremities bears from one to three long flagelliform filaments, of 0.015 to 0.030 millim. in length, and at the base of these there are one or more vibratile cilia, which are generally rather short. The opposite extremity of the body is usually elongated into a tail, or slender style, which is rather stiff, and not contractile, and of which the length is sometimes equal to that of the body. We have been unable to find a buccal aperture, although we have thought we saw a slight oblique groove at the anterior portion which bears the cilia. The interior is finely granular and colourless, without any appearance of a nucleus or of contractile vacuoles. Their movements are very slow when the mucus is diluted with water, or with a weak solution of sugar, for it is rather remarkable that water is very injurious to these animals. When brought in contact with it they swell up, acquire a globular form, and exhibit vacuoles in their interior; the movements of the vibratile cilia still continue for some time, but without energy, so that the animals do not change their place, and they cease to move in a certain time. Such Trichomonads have a tolerably distinct resemblance to vibratile cells, and we suspect that those who have put forward the opinion that these organisms do not belong to the animal series, have been led into error by preparations treated with water. If, on the other hand, *pure* vaginal mucus be examined with the microscope, it is astonishing to see the mobility and vivacity of these little creatures, and no doubt will exist as to their nature.

We shall conclude by remarking, that we have found Trichomonads in many women, both pregnant and the reverse, healthy and affected with leucorrhœa, and that, in our opinion, this animal has no relation with the venereal principle. Nevertheless it is perfectly true, as pointed out by Donné, that the Trichomonads are never found in a vaginal mucus which does not contain mucous or purulent globules, and that they often occur in great numbers in a yellowish, creamy (not frothy, according to Donné), and very acid mucus. A mucus which contains many of these globules also frequently contains cryptogamic plants closely allied to, if not identical with, the *Lepsothrix buccalis*, Rob. It may consequently be said, that the existence of this parasite is connected with a certain alteration of the vaginal mucus, and that it acquires its greatest development in a truly morbid secretion.—*Comptes Rendus*, 7th May 1855, p. 1076.

NEW WORK BY MR. GOSSE.

Mr. P. H. Gosse has now in the press a 'Manual of British Marine Zoology,' in which will be given the characters of every Class, Order, Family and Genus of our native marine animals, from the sponges upwards, with lists of recognized species, and a figure of each genus.